

In the name of God

CURRICULUM VITAE



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DATE OF BIRTH: 1969 / 03 / 21

MARITAL STATUS: Married

EDUCATION

1. March 2005 up to October 2005: Research assistant at Kumamoto University in Japan.
2. October 2001 up to March 2005: Received Ph.D. degree in Rock Mechanics, (Graduate School of Science and Technology, Civil Engineering Department, Rock Mechanics Division) from Kumamoto University in Japan.
3. Sept. 1993 up to June 1996: Received M.Sc. degree in the field of Mining Engineering (Research Work in Filed of Rock Mechanics) from Amirkabir University of Technology (Tehran Polytechnic) Tehran-Iran.
4. Sept. 1989 up to Sept 1993: Received B.Sc. degree in the field of Mining Engineering from Isfahan University of Technology, Isfahan-Iran.
5. 1986-1989: Received High school Diploma, Abadeh-Iran.

B.Sc. Project Title: Estimation of the Stability of Rock Slopes and Characterize of Different Modes of Failure in Goushfil Open Pit Mine.

M.Sc. Thesis Title: Analysis of Rock Slope Stability using Finite Element Method (FEM) with Emphasis to Wedge Failure.

Ph.D. Thesis Title: Evaluation of Rock Mass Deformability by Means of In Situ Loading Tests (new development to measure the deformation modulus of rock mass in field).

Faramarzi in 2018 developed a new laboratory automatic drilling machine and it is very interesting for research works in different rock types, in complex rock formations and for research works in field of petroleum geomechanics. This drilling machine has ability to measure specific energy.

RESEARCH AREA and EXPERIENCE

Application of **nano-technology** (nano-measurement) in geomechanics

The development of **geothermal reservoir** engineering

Monitoring (dam, slope, tunnel, underground spaces, reservoir, mine, bridge)

Grouting (soil and rock)

Site investigation and in situ measurements

Rock mechanics Lab. and in situ tests and instrumentation in rock mechanics (choosing, installing and data processing)

Thermo-hydro-mechanical-chemical (**THMC**) processes and experimentation in rock mechanics

Displacement discontinuity method (DDM)

X-ray CT for geomaterials

Tunneling and underground space design of support system

Gas migration due to crack propagation in coal mines

Physical modeling of deep underground excavation in stratified rocks

Rock slope stability and **remote monitoring** approach for prediction of landslide

Effect of **temperature and pressure** on rock strength characterization

Experimental study of **rockburst** and rockburst process evaluation

Application of **infrared thermography (IRT)** in geomechanics

Numerical and analytical methods in geomechanics

Rock stress and stress measurement

Geomechanics applications of hydraulic fracturing in oil and gas reservoirs

Reservoir geomechanics

Geomechanics model for wellbore stability (sand production, lost circulation, stuck pipe, breakthrough, wellbore collapse, uncontrolled fracturing and casing failure)

Fracture and damage mechanics (rock and concrete materials)

Locality effects in geomechanics

PUBLICATIONS

Refereed Journals (ISI)

1. Rashid Afshar, **Lohrasb Faramarzi**, Mirmilad Mirsayar, Behnam Ebrahimi J. Aggregate size effects on fracture behavior of concrete SCB specimens. *Construction and Building Materials* 389 (2023).
2. Dominic Owusu-Ansah, Joaquim Tinoco, **Faramarzi Lohrasb**, Francisco Martins, José Matos. A Decision Tree for Rockburst Conditions Prediction. *Appl. Sci.* 13 (2023).

3. Amin Azhari¹, Alireza Yarahmadi Bafghi, **Lohrasb Faramarzi**, Ramin Salamat Mamakani. Significance of three-dimensional analyses on static and seismic stability analyses of fractured open-pit mine slopes. *Proceedings of the Institution of Civil Engineers-Geotechnical Engineering* (2022).
4. Ramin Salamat Mamakani, Amin Azhari, Rennie Kaunda, **Lohrasb Faramarzi**, Hajar Share Isfahani. Investigating the effect of material stiffness contrast on the dynamic stability of upstream tailings dams (Case study: Esfordi tailings dam). *Analytical and Numerical Methods in Mining Engineering* (2022).
5. **Lohrasb Faramarzi**, Mohammad Darbor, Behnam Ebrahimi Jouzdani, Seyed Hadi Hoseinie. The effect of anisotropy on the mechanical properties of artificial rock mass based on laboratory physical modelling. *Analytical and Numerical Methods in Mining Engineering* (2022).
6. Mohsen Rahmanipoor, **Lohrasb Faramarzi** and Amin Azhari. A new rock-bolting pattern proposed for Tabas fully mechanized mine using field instrumentation and numerical modelling. *Geotech Geol Eng* (2021).
7. Bijan Dehghani, **Lohrasb Faramarzi**, Danial Mohammadzamani, Ehsan Salehi¹. Influence of thermal treatment on behavior of stress-lateral strain curve in crystalline marble rock using experimental and numerical. *Arabian Journal of Geosciences* 14:2450 (2021).
8. Mohammad Azarafza¹, Mustafa K. Koçkar, **Lohrasb Faramarzi**. Spacing and block volume estimation in discontinuous rock masses using image processing technique: a case study. *Environmental Earth Sciences* 80:471 (2021).
9. Amirkiyaei, V., Ghasemi, E. & **Faramarzi, L.** Estimating uniaxial compressive strength of carbonate building stones based on some intact stone properties after deterioration by freeze–thaw. *Environ Earth Sci* 80, 352 (2021).
10. Amirkiyaei, V., Ghasemi, E. & **Faramarzi, L.** Determination of P-wave Velocity of Carbonate Building Stones During Freeze–Thaw Cycles. *Geotech Geol Eng* 38, 5999–6009 (2020).
11. Vahid Amirkiyaei, Ebrahim Ghasemi, **Lohrasb Faramarzi**. Evaluation of long-term durability of carbonate building stones after freeze and thaw cycles using CART method. *Journal of Iranian Association of Engineering geology* Volume 13, Issue 3, 67-81 (2020).
12. Jabbar Ashrafi, **Lohrasb Faramarzi**, Mohammad Darbor, Mostafa Sharifzadeh, and Behnam Ferdosi. The effects of temperature on mechanical properties of rocks. *International Journal of Mining and Geo-Engineering*, Vol. 54, No. 2, 147–152 (2020).
13. B Yang Wang, Manchao He, Fuqiang Ren, Chun Zhu and **Lohrasb Faramarzi**. Source analysis of acoustic emissions during granite strain burst. *GEOMATICS, NATURAL HAZARDS AND RISK*, Vol. 10, No. 1, 1542–1562 (2019).
14. Bijan Dehghani and **Lohrasb Faramarzi**. Experimental investigations of fracture toughness and crack initiation in marble under different freezing and thermal cyclic loading. *Construction and Building*

Materials, 220, 340-352 (2019).

15. **Lohrasb Faramarzi**, Alireza Kheradmandian and Amin Azhari. Evaluation and Optimization of the Effective parameters on the Shield TBM Performance-Torque and Thrust–Using Discrete Element Method (DEM). *Geotech Geol Eng* 38, 2745-2759 (2020).
16. B Dehghani, **L Faramarzi**, A Azhari and M Sanei. Investigating allowable distance between powerhouse and transformer caverns to prevent buckling phenomenon using numerical and analytical methods (case study: Bakhtiary dam and HPP). *J. Geophys. Eng.*, DOI 10.1088/1742-2140/aac18d, 15, 1977-1990, (2018).
17. Mohammad Darbor, **Lohrasb Faramarzi**, Mostafa Sharifzadeh. Size-dependent compressive strength properties of hard rocks and rock-like cementitious brittle materials. *Geosystem Engineering*, doi.org/10.1080/12269328.2018.1431961, (2018).
18. Mohammad Darbor, **Lohrasb Faramarzi** & Mostafa Sharifzadeh. Performance assessment of rotary drilling using non-linear multiple regression analysis and multilayer perceptron neural network. *Bull Eng Geol Environ*, DOI 10.1007/s10064-017-1192-3, (2017).
19. **Lohrasb Faramarzi** and Hooman Rezaee. Testing the Effects of Sample and Grain Sizes on Mechanical Properties of Concrete. *Journal of Materials in Civil Engineering*, Vol. 30, Issue 5 (2018).
20. Asghar Rahmati, **Lohrasb Faramarzi** and Mohammad Darbor. Squeezing rock conditions at phyllite-slate zone in the Golab water conveyance tunnel, Iran: a case study. *Journal of Central South University* 24, 2475-2485 (2017).
21. **Lohrasb Faramarzi**, Arezou Rasti, Seyyed Mehdi Abtahi. An experimental study of the effect of cement and chemical grouting on the improvement of the mechanical and hydraulic properties of alluvial formations. *Construction and Building Materials*, 126, pp. 32-43 (2016).
22. **L. Faramarzi**, M. Zare, A. Azhari, M. Tabaei. Assessment of rock slope stability at Cham-Shir Dam Power Plant pit using the limit equilibrium method and numerical modeling. *Bull Eng Geol Environ*, DOI 10.1007/s10064-016-0870-x, (2016).
23. Manouchehr Sanei, **Lohrasb Faramarzi**, Ahmad Fahimifar, Sareh Goli, Abolfazl Mehinrad, Asghar Rahmati. Shear strength of discontinuities in sedimentary rock masses based on direct shear tests. *International Journal of Rock Mechanics & Mining Sciences*, 75, pp. 119-131, (2015).
24. Asghar Rahmati, **Lohrasb Faramarzi**, Manouchehr Sanei. Development of a new method for RMR and Q classification method to optimize support system in tunneling. *Journal of Frontiers of Structural and Civil Engineering*, DOI 10.1007/s11709-014-0262-x, (2014).
25. Manouchehr Sanei and **Lohrasb Faramarzi**. Empirical Development of the Rock Mass Deformation Modulus. *Journal of Geological Resource and Engineering*, Vol. 2, pp. 55-67, (2014).

26. Manouchehr Sanei, **Lohrasb Faramarzi** & Bijan Dehghani. Evaluation of rock discontinuity shear strength criteria based on the laboratory direct shear tests. *Malaysian Journal of Civil Engineering* 26(3), 283-306 (2014).
27. M. Sanei, **L. Faramarzi**, S. Goli, A. Fahimifar, A. Rahmati, A. Mehinrad. Development of a new equation for joint roughness coefficient (JRC) with fractal dimension: A case study of Bakhtiary Dam site in Iran. *Arabian Journal of Geosciences*, DOI: 10.1007/s12517-013-1147-3 (2013).
28. Manchao He, XuenaJia, WeiliGong, **Lohrasb Faramarzi**: Physical modeling of an underground roadway excavation in vertically stratified rock using infrared thermography, *Int. J. Rock Mech. Min. Sci.* Vol. 47, Issue 7, pp. 1212-1221, (2010).
29. Sugawara, K., **Faramarzi, L.** and Nakamura, N.: Determination of Rock Mass Deformation Modulus by means of Traveling Load Tests – Part I: Theory of Traveling Load Test in Open Pit, *Int. J. Rock Mech. Min. Sci.* Vol. 43, Issue 2, pp. 179-191, (2005).
30. Sugawara, K., **Faramarzi, L.** and Nakamura, N.: Determination of Rock Mass Deformation Modulus by Means of Traveling Load Tests – Part II: Practice of Traveling Load Test in Open Pit, *Int. J. Rock Mech. Min. Sci.* Vol. 43, pp. 192-202, (2005).

Refereed Journals (ISC and Scientific Research)

1. Hadi Shakeri, Mohammad Darbor, **Lohrasb Faramarzi**. Experimental Study of the Perforation Effect on Hydraulic Fracturing Under Triaxial Stresses Using Physical Modeling. *Analytical and Numerical Methods in Mining Engineering*. Vol. 9 (20), pp. 89-104 (2019).
2. Mohammad Darbor, **Lohrasb Faramarzi**, Mostafa Sharifzadeh, Hooman Rezaee. Evaluation of Specimen Size-Effect in Sedimentary Rocks and Grain Size Effect in Concrete Specimens on Uniaxial Compressive Strength. *Analytical and Numerical Methods in Mining Engineering*. Vol. 8, (16), pp. 57-70 (2018).
3. H. Behzadi Nezhad, **L. Faramarzi**, M. Darbor. Stability Analysis and Support System Design of Penstock Tunnels Bifurcation with Headrace Tunnel of Rudbare-Lorestan Dam Project. *Analytical and Numerical Methods in Mining Engineering*. Vol. 7 (13), (2017).
4. Alireza shamsadinifard, **Lohrasb Faramarzi**, Raheb bagherpour, Morteza asadipour maybodi. Instrumentation locating in the western wall of Sarcheshmeh copper mine using GIS. *Analytical and Numerical Methods in Mining Engineering*. Vol. 5, No. 10, (2016).
5. B. Dehghani, **L. Faramarzi**, M. Sanei. Stability Analysis of Powerhouse Caverns of Bakhtiary Dam Using 3DEC Software. *Analytical and Numerical Methods in Mining Engineering*. Vol. 4, No. 8, (2015).

6. M. Karami, **L. Faramarzi**, R. Bagherpour, D. Raisi Gahrooei., The Influence of Geological Features and Geomechanical Properties of Rock Mass on TBM Selection for Sabzkouh Water Conveyance Tunnel, *Journal of Engineering Geology (ISC)*, Vol. 8, No. 2, pp. 2169-2194, (2014).
7. I. Shafaeizadeh, M. R. Forouzan and **L. Faramarzi**., Simulation of crack initiation and propagation in hydraulic fracturing of oil wellbore by extended finite element method. *Scientific Research Monthly Journal Modares Mechanical Engineering (ISC)*, Vol. 14, No. 5, pp. 164-174, (2014).
8. Behnam Abrah, **Lohrasb Faramarzi**, Morteza Gharouni Nik., Determination of geological and geotechnical parameters of rock mass along penstock tunnels of Rudbar-Lorestan dam. *Journal of Iranian Society of Engineering Geology (ISC)*, Vol. 5, No. (3, 4), pp. 49-66, (2013).
9. M. Sanei, A. Rahmati, B. Dehghani, **L. Faramarzi** & R. Bagherpour., Suggestion of the optimized criterion for estimation of shear strength of rock joint in andesite rock. *Journal of Applied Geology*, Vol. 9, No. 2, pp. 111-121, (2013).
10. **L. Faramarzi**, A. Horiyat., Stability Analysis of Zayandeh-Rud Double arc Dam Body and Foundation Using the Results of Instrumentation and Numerical Modeling, *Amirkabir Journal (ISC)*, Vol. 44, No. 1, pp. 55-63, (2012).

Refereed Conferences

Keynote lecture

1. Manchao H., Sousa L., **Faramarzi L.**, "Rockburst process evaluation using experimental and artificial intelligence techniques", *Proceedings of 1th Iranian Mining Technologies Conference and Exhibition (IMT)*, (Keynote lecture), PP. 240-264, (2012).
2. Sugawara, K., D. Fukahori, **L. Faramarzi** and N. Nakamura. High-resolution tilt monitoring for slope stability assessment in limestone quarry, *Proc. of the 1st Kyoto Int. Sym. on Underground Environment (keynote lecture)*, pp.51-62, Japan (2003).

Conference papers

1. Mehrnoush Haghighat and **Lohrasb Faramarzi**. Stability analysis of abutments of Pir-Taghi dam site based on 3D distinct element method. *6th Iranian Rock Mechanics Conference (IRMC6)*, 14-15 Feb. 2017, Tehran-Iran.
2. **L. Faramarzi** and S.H. Khademi. Evaluation of strength and ductility of Barchip fibre reinforced shotcrete. *6th Iranian Rock Mechanics Conference (IRMC6)* (Feb. 2017, Tehran-Iran).
3. **L. Faramarzi** and Hooman Rezaee. Experimental study on the effect of sample size and grain size on strength properties of rock materials. *6th Iranian Rock Mechanics Conference (IRMC6)* (Feb. 2017, Tehran-Iran).

4. Mohsen Rahmanipour, **Lohrasb Faramarzi**, Saeid Mahdevari. Proposes for Reform the Support System of Tabas Mechanized Mine (Central Mine) –A numerical approach. *3rd National Iranian Coal Congress*. Shahrood University of Technology, 30-31 August (2016).
5. Saeid Mahdevari. Proposes for Reform the Support System of Tabas Mechanized Mine (Central Mine) –A numerical approach. *3rd National Iranian Coal Congress*. Shahrood University of Technology, 30-31 August (2016).
6. Mohsen Rahmanipour, **Lohrasb Faramarzi**, Saeid Mahdevari. Proposes for Reform the Support System of Tabas Mechanized Mine (Central Mine) –A numerical approach. *3rd National Iranian Coal Congress*. Shahrood University of Technology, 30-31 August (2016).
7. Mohsen Rahmanipour, **Lohrasb Faramarzi**, Saeid Mahdevari. Proposes for the Support System of floor heave in Tabas Mechanized Mine (Central Mine) using Instrumentation results. *3rd National Iranian Coal Congress*. Shahrood University of Technology, 30-31 August (2016).
8. Ali Shirazi, Mehdi Shirani, **Lohrasb Faramarzi**. Prediction of the fatigue life of the threaded connections pipes used in oil wells. *23rd Annual International Mechanical Engineering conference*, Amirkabir University of Technology, (2015).
9. Hossein Shafii Esfidvajany, Mehdi Shirani, **Lohrasb Faramarzi**. 3D Simulation of sand production using erosion of rock model. *1st National Conference on Petroleum Geomechanics*, Tehran, Iran (2015).
10. M. Sanei, M. A. Veshadi, **L. Faramarzi**. Evaluation various methods of structural analysis of segmental lining and 3D modeling of segment by FEM (case study: Golab water conveyance tunnel). *5th Iranian Rock Mechanics Conference (IRMC5)*, Tehran, Iran (2014).
11. Hamed Abdolahi, **Lohrasb Faramarzi**. Prediction of ground settlement and evaluation of the effects of tunnel face advance excavation on the settlement of the ground surface due to tunneling (case study: Qom subway). *5th Iranian Rock Mechanics Conference (IRMC5)*, Tehran, Iran (2014).
12. Man-Chao HE, **L. Faramarzi**, and Wang Chun-Guang., "Influence of temperature and pressure on gas emission due to crack propagation in coal-mines: an experimental study", *23th world Mining congress (WMC)*, (paper-538), (2013).
13. A. Rahmati, M. Sanei, **L. Faramarzi** & R. Bagherpour., "Development of two equations for estimation value of JH classification method to optimize support system in tunneling". *Proceedings of the 3RD ISRM sinorock symposium*, pp. 725-728, (2013).
14. M. Sanei, A. Rahmati & **L. Faramarzi**., "Estimation of rock mass deformation modulus in Bakhtiary dam project in Iran". *Proceedings of the 3RD ISRM sinorock symposium*, pp. 161-164, (2013).

15. Man-Chao HE & Z. Tao, **L. Faramarzi**, "Remote monitoring of sliding force for prediction of landslide and slope stability assessment in open pit mine". *Proceedings of the First International Conference on Rock dynamics and applications (RocDyn-1)*, pp. 330-340, (2013).
16. Sayed Hassan Khademi, **Lohrasb Faramarzi**, Mahmmad Reza Eftekhari, Akbar Emami, Hassan Sahranavard., "Evaluation of strength and ductility properties of barchip fiber reinforced shotcrete and concrete". 10th Iranian tunneling conference, (paper-195), (2013).
17. Hamed abdollahi poor, **Lohrasb Faramarzi**, "Stability analysis and evaluation of ground settlement in Qom subway with FLAC3D". 10th Iranian tunneling conference, (paper-446), (2013).
18. Manouchehr Sanei, Asghar Rahmati, **Lohrasb Faramarzi**, Abolfazl Mehinrad, Hossein Chehreh., "Development of new empirical equation for estimation of rock mass deformation modulus by using of JH classification system, a case study: Bakhteyari dam project-Iran". *The first international conference mining, mineral processing, metallurgical and environmental engineering*, pp. , (2013).
19. A. Rahmati, M. Sanei, **L. Faramarzi**. JH rock mass classification methods used in Behasht Abad water Transition tunnel and comparison with other classical methods. Proceeding of 4th Iranian Mining Engineering Conference, pp. 124-130, Tehran, Iran, (2012).
20. M. Lak, E. Mohammadi, **L. Faramarzi**. Assessing the maximum strength of hard rocks using artificial neural networks (Case Study: Cupper mine of Darezar), Proceeding of 4th Iranian Mining Engineering Conference, pp. 276-282, Tehran, Iran, (2012).
21. Mahmoud Sarikhani-Khorami, Kaveh Soleimani, **Lohrasb Faramarzi**, "Estimation of geomechanical properties and in situ stresses using back analysis and genetic algorithms application". 9th International congress on civil engineering (9ICCE), (paper-111243), Iran (2012).
22. M. Gharouni Nikc, B. Abraha, M. Karamia, **L. Faramarzi**, Stability analysis of underground structure by numerical method (case study: penstock tunnels of Rudbar dam Iran). 13th ACUUS, Advances in underground space development. pp. 446-454, Singapore (2012).
23. Morteza Karamia, Behnam Abraha, Soheila Dayania, **Lohrasb Faramarzi**, Morteza Gharouni Nikc, Empirical Correlations Between Static and Dynamic Properties of Intact Rock, *7th Asian rock mechanics symposium ARMS7*, pp. 506-516, South Korea (2012).
24. Behnam Abraha, Morteza Karamia, **Lohrasb Faramarzi**, Morteza Gharouni Nik, Support System Design of Twin Tunnels by Numerical and Empirical Methods, *7th Asian rock mechanics symposium ARMS7*, pp. 1524-1533, South Korea (2012).
25. **L. Faramarzi**, A. Horiyat & M. Tabaei., Structural Monitoring of a Zayandeh-Rud Concrete Arch Dam in Iran. *Proc. of the 24th Icold congress*. Kyoto, Japan (2012).

26. B. Abrah, M. Karami, **L. Faramarzi**., Importance of Anisotropy in Dam Foundation, Estimating by In Situ Dilatometer Tests. *Proc. of the 12th Rock Mechanics Congress*. pp. 1857-1860, China (2011).
27. M. Asadpour, **L. Faramarzi**, G. A. Safian., Determination of Geomechanical Parameters Defined by DSI log and Rock Mechanical Tests on Reservoir core Samples and Comparison Between Them. *4th Iranian Rock Mechanics Conference*., pp. 817-822, Tehran (2011).
28. H. Behzadinezhad, **L. Faramarzi**, M. Gharouni Nik., Evaluation of Temporary Supporting System for Bifurcation – The Place of Headrace Tunnel with Penstock Tunnels of Rudbar-Lorestan Dam. *4th Iranian Rock Mechanics Conference*. pp. 351-356, Tehran (2011).
29. M. Karami, **L. Faramarzi**, R. Bagherpour., Investigation of The Effect of Geological Conditions and Geomechanical Properties of Rock Mass on Choose of the Tunnel Boring Machine for Sabz-kouh Tunnel. *9th Iranian and first Asian Tunneling Conference*. Tehran, Oct. 2011, Tehran (full paper accepted).
30. B. Abrah, **L. Faramarzi**, M. Gharonik, H. Hashemalhoseini., Sensitivity Analysis of Geomechanical Parameters and Stress Ratio of Rock Formation on the Stability of Penstock Tunnels of Roudbar-Lorestan Dam. *4th Iranian Rock Mechanics Conference*. pp. 29-34, Tehran (2011).
31. Behnam Abrah., Hadi Atapour., **Lohrasb Faramarzi**, Monitoring of leakage process and Internal Erosion in Earth Dams Using electrical resistivity Method. *3th Iranian Mining Engineering conference*. PP. 1116-1123, Yazd (2010).
32. Eftekhari S. M., Mahdevari S., **Faramarzi L.**, Leakage Quantity Investigation for Behesht Abad Water Transition Tunnel by using Analytical and Numerical Approach., *8th Iranian Tunneling Conference*., PP. 90-98, 18-20, Tehran (2009).
33. Khani A., Mikaeil R., **Faramarzi L.**, Determination of Admissible Advancement Step in Koochin Railway Tunnel by Convergence-Confined Method. *8th Iranian Tunneling Conference*. PP. 180-187, Tehran (2009).
34. **L. Faramarzi**, H. Fatahi, Interpretation of Plate Loading Test results on Major Projects, *Proc. of the 5th Asian Rock Mechanics Symposium*., PP. 225-260, Iran (2008).
35. **L. Faramarzi**, K. Sugawara, Noise effects on Monitoring of Rock Slope Deformations by a High-Resolution borehole Tilt-meters in an Open Pit Limestone Mine, *Proc. of the 3rd Iranian Rock Mechanics Conference*., PP. 1165-1174, Tehran (2007).
36. **L. Faramarzi**, K. Sugawara, Application of High-Resolution Borehole Tilt-meter to Monitoring of the Earth Tide, *The 1st Nano Technology Conference*., Shiraz (2007).

37. **L. Faramarzi**, K. Sugawara, Analyzing of the Representative Length of Rock Mass Subjected to Load by In Situ Loading Tests to Evaluation of Rock Mass Deformation Modulus, *Proc. of the 4th Asian Rock Mechanics Symposium*. PP. 273-281, Singapore (2006).
38. **Lohrasb, Faramarzi**, D. Fukahori and K. Sugawara, Earth Tide Monitoring by High-Resolution Tiltmeter. *The Proc. of Annual Meeting of MMIJ*, Kyushu Branch, PP. 22-24, (2003).
39. **Lohrasb, Faramarzi**. In Situ Direct Shear Tests for determining of shear property of Rock Mass Discontinuities in SYMAREH and SAZBON Dam Sites. *The 5th Conference of Tunnel in Iran*, Tehran, Tehran University, *Abstract*, (2001).
40. **Lohrasb, Faramarzi**. Comparison of Results of In Situ Plate Bearing and Flexible Dilatometer Tests for Determining of Deformation Modulus of Rock Mass in SEYMAREH Dam Site. *The 5th Conference of Tunnel in Iran*, Tehran, Tehran University, *Abstract*, (2001).
41. Gharouni, M., **Faramarzi, L.**, Application of Dilatometer Tests in Determining the Moduli of Rock Mass at Karun-4 Dam Site, *Proc. of 9th Congress of the Int. Society for Rock Mechanics*, Paris, Vol. 2, PP. 1367-71, (1999).
42. M. Gharouni, **L. Faramarzi**, M. Saeidi.: Plate Load Test for Determining of Deformation Modulus in Nimrood Dam Site. *Proc. of 4th Conference of Tunneling*, Tehran, Amirkabir University of Technology, PP. 90-94, (1998).

WORK EXPERIENCE

1. March 1993 to October 1993: Field Investigation on Joint Study and determining of Shear Parameters of Rock Mass Discontinuities in Laboratory to Estimate the Stability of Rock Slopes and Characterized of Different Modes of Failure in Goushfil Open Pit Mine, Isfahan, Iran.
2. Sept. 1996 to Aug. 1999: Rock Mechanic Engineer (Laboratory and In Situ Tests) in KHAK and SANG Co., Tehran, Iran.
3. Aug. 1999 until October 2001: Rock Engineer in Civil Affairs of Iran Water & Power Resources Development Co., Tehran, Iran.
4. Stability Checkup for Limestone Slope by means of the Nano-Scale Tilt Monitoring, Preliminary Examination of the Monitoring Data in Shiriya Open Pit Mine”, 2002, (JAPAN).
5. Feb. 2006 up to now; Dep. of Mining Eng. (Rock Mechanics Division) Isfahan University of Technology, Isfahan-Iran.

ACADEMIC ADMINISTRATION

1. September 2019 until 29 February 2022; Scientific **Journals Assistant** of Isfahan University of

Technology.

2. 6 Dec 2012 until 3 February 2018; **Deputy of Research Affairs** (Mining engineering department).
3. 26 Sep 2009 until 6 May 2012; **Deputy of Student Affairs** (Mining engineering department).
4. 16 Jun 2007 until 23 Aug 2009; **Deputy of Research Affairs** (Mining engineering department).

MEMBERSHIP

1. Member of Abutment Stability of Dams Session of IRCOLD.
2. Member of Iranian Society for Rock Mechanics (IRSRM).
3. Member of International Society on Rock Mechanics (ISRM)

ACADEMIC AWARDS

1. **M.Sc Scholarship** from Mining Ministry of Iran, 1996.
2. **Ph.D Scholarship** from Japan's Government (Monbukagakusho), Oct. 2001 – Oct. 2005.
3. **Visiting Scholar** in Chinese State Key Laboratory for GeoMechanics and Deep Underground Engineering, China University of Mining & Technology, Beijing, 2009-07-08 ~2009-09-08.
4. **Visiting Scholar** in Chinese State Key Laboratory for GeoMechanics and Deep Underground Engineering, China University of Mining & Technology, Beijing, 2010-06-09 ~2010-09-10.
5. **Visiting Scholar** in Chinese State Key Laboratory for GeoMechanics and Deep Underground Engineering, China University of Mining & Technology, Beijing, 2018-08-21 ~2018-09-30.
6. **Financial support** from the **Special Funds** for the **Hydraulic Fracturing Basic Research Project** under Grant No. 2010 **SKLGDUEK0913**, The State Key Laboratory for GeoMechanics and Deep Underground Engineering, Beijing, China University of Mining & Technology, Beijing.
7. **Researcher** at the State Key Laboratory for GeoMechanics and Deep Underground Engineering, Beijing, China University of Mining & Technology, Beijing.

ATTENDED WORKSHOP

1. **Prof. Dr. Rummel**. “Hydraulic Fracturing in Rocks, Theory and Application”., *IRSRM, TarbiatModares University*, 15 Nov. 2007, Theran, Iran.
2. **Prof. Dr. N. Barton**. “Rock Engineering for Drill and Blast and TBM Tunneling, and Important Aspects of Rock Joint and Rock Mass Behavior”, *IRSRM, Tarbiat Modares University*, 4-5 Feb. 2008, Theran, Iran.
3. **Prof. M. B. Dusseault**. “Petroleum Geomechanics in Value Chain”, *5th Asian Rock Mechanics Symposium*, 22-23 November 2008, Theran, Iran.

PRESENTATION WORKSHOP

Course organizer: Betsa Academy, Persia Oil & Gas

Course attendees: P.E.D.E.C Company employees

Course Venue: Palace.Espinas Hotels

Course Tutor: **Lohrasb Faramarzi**

Course contents: Petroleum geomechanics

Course Period: 17- 21 February-2018 (5 full days)

TECHNICAL REPORTS

1. **L. Faramarzi**, PIR-TAGHI Dam and Hydroelectric Power Project Engineering Geology and Rock Mechanics Report (Report on Compilation of Site Investigations Phase I & II), September 2017.
2. **L. Faramarzi**, Rock Mechanics Report on Petroleum Reservoir Rock Samples in Order to Predict the Potential of the Bangestan Oil Reservoir for Hydraulic Fracturing, September 2010.
3. **L. Faramarazi.**, Report of Dilatometer Borehole Tests for Determination of Rock Mass Modulus of Kosar–Dam Project. Fall 1996, *KHAK and SANG Co.*
4. **L. Faramarazi.**, Report of Dilatometer Borehole Tests for Determination of Rock Mass Modulus of Doosti–Dam Project. Winter 1998, *KHAK and SANG Co.*
5. **L. Faramarazi.**, Report of Dilatometer Borehole Tests for Determination of Rock Mass Modulus of Gotvand–Dam Project. Fall 1998, *KHAK and SANG Co.*
6. **L. Faramarazi.**, Report of Dilatometer Borehole Tests for Determination of Rock Mass Modulus of Seymareh–Dam Project. Winter 1998, *KHAK and SANG Co.*
7. **L. Faramarazi.**, Report of Dilatometer Borehole Tests for Determination of Rock Mass Modulus of Karoun-4 Dam Project. Summer 1999, *KHAK and SANG Co.*
8. **L. Faramarazi.**, Report of Dilatometer Borehole Tests for Determination of Rock Mass Modulus of Sazbon–Dam Project. Summer 2000, *KHAK and SANG Co.*
9. **L. Faramarazi.**, Report of In Situ Direct Shear Tests for Determining of Shear Property of Rock Mass Discontinuities in Seymareh, Sazbon and Gotvand Dam Sites, Spring 2000, *KHAK and SANG Co.*
10. **L. Faramarazi.**, Report of In Situ Plate Load Tests for Determining of Deformation Modulus in Gotvand Dam Site., summer 1998, *KHAK and SANG Co.*
11. **L. Faramarazi.**, Report of In Situ Plate Load Tests for Determining of Deformation Modulus in Nimrood Dam Site., summer 1998, *KHAK and SANG Co.*
12. **L. Faramarazi.**, Report of In Situ Plate Load Tests for Determining of Deformation Modulus in Karoun-4 and Seymareh and Sazbon Dam Sites., Fall 1999, *KHAK and SANG Co.*

13. **Lohrasb, Faramarzi.** Qualified Evaluation Permeability Coefficient in Stiff Structures and Discontinuities Using Geophysics and Well Logging Method. *Amirkabir University of Technology*, 80 Pages, 1996.

TEACHING EXPERIENCES

1. **Rock Mechanics**, Isfahan University of Technology, 2006 up to now (B.Sc.).
2. **Rock mechanics Lab.**, Isfahan University of Technology, 2006 up to now (B.Sc.).
3. **Structural Geology**, Isfahan University of Technology, from 2006 to 2015 (B.Sc.).
4. **Advanced Rock Mechanics** Isfahan University of Technology, 2007 up to now (M.Sc.).
5. **Advanced Slope Stability**, Isfahan University of Technology, 2007 up to now (M.Sc.).
6. **In situ tests and instrumentation in rock engineering**, (choosing, Installing and data Processing), 2007 up to now (M.Sc. and PhD).
7. **Rock Fracture Mechanics**, from 2011 up to now (M.Sc. and PhD).
8. **Physical Modeling in Rock Engineering**, 2011 up to now (PhD).
9. **Petroleum Geomechanics**, 2015 up to now (M.Sc.).

THESIS SUPERVISION (MSc)

1. **Reza Shafiei-nejhad**, Discontinues stability analysis of rock masses along the diverted tunnel of Khersan-3 Dam project (2007).
2. **Aein Horiyat**, Evaluation of the stability of the Zayandeh-Rood dam using monitoring instrumentation analysis (2010).
3. **Reza Zarifpour**, Evaluation of the effects of soil grouting on cross over structure. Application to Esfahan subway stations (2010).
4. **Sajad Namdari**, Permeability of dual porosity media with Distinct Element Method (DEM) approach-A numerical study (2010).
5. **Hadi Fatahi**, Determination of geomechanical parameters and design support system of conveyance tunnel of Vanak Dam (2010).
6. **Amin Azhari**, Estimating dynamic parameters and dynamic analysis of rock slopes, (case study: Tectonic block 1 and 2 of Choghart mine) (2011).
7. **Mohammad Asadpour Khajeghani**, Estimation of geomechanical parameters of the Ahvaz oil field by using rock mechanic tests on reservoir rock specimens in order to predict required pressure for hydraulic fracturing (2011).
8. **Behnam Abrah**, Static and dynamic stability analysis of penstock tunnels in Rudbar - Lorestan Dam project (2011).

9. **Hossin Behzadinejhad**, Stability analysis and support system design of the headrace branching is defined as bifurcation in Rudbar-Lorestan dam project (2011).
10. **Morteza Karami**, Selection of mechanized excavation and segmental lining for Sabzkouh water conveyance tunnel to Choghakhor dam (2011).
11. **Sayed Hassan Khademi**, Evaluation of Underground Space Permanent Support System Using Polyolefin Fiber Shotcrete (Barchip Fiber) (2012).
12. **Mahmood Sarikhani**, Estimation of Geomechanical Parameters and In Situ Stresses of Rock Mass in the Isfahan – Shiraz Railway Tunnel by using Back analysis based on Displacement Monitoring (2012).
13. **Kaveh Soleymani**, Predict of Rock Mass Deformation Modulus by Neuro-Fuzzy Inference Systems Using the Data of Laboratory and in Situ Tests, Beheshtabad Dam Site-Iran (2012).
14. **Asghar Rahmati**, Study and assessment squeezing effect in the Golab water conveyance tunnel with considering the rock time function and TBM machine advance rate (2013).
15. **Manouchehr Sanei**, Investigation constitutive model for major discontinuities of rock masses in Bakhteyari dam (2013).
16. **Bijan Dehghani**, Optimization of rock pillar spacing between powerhouse and transformer caverns in layout of underground powerhouse of the Bakhteyari dam using numerical method (2013).
17. **Mahdi Sanei Arani**, Study on factor leading to cracking of tunnel segment Golab water conveyance tunnel -with special attitude in situ stress (2013).
18. **Iman Shafaeizadeh**, Extended finite element modeling of hydraulic fracturing in oil wells (2013).
19. **Alireza Kheradmandian**, Numerical analysis of earth pressure balance tunneling by discrete element method with focus on Tehran metro line 7 (2013).
20. **Sayed Zaniyar Sayed Mousavi**, Estimation of geomechanical parameters of rock masses at the Chamshir dam site (2013).
21. **Hamed Abdolahi poor**, Determination of ground surface settlement caused by tunneling in Qom subway (between Valiasr-Baghiatallah stations), (2013).
22. **Alireza Shams-aldini**, Geomechanical Zonation of Western Wall at Sarcheshmeh Copper Open Pit Mine (2013).
23. **Amin Ajabi-Naeini**, Estimation of crack propagation in homogeneous rock in order to evaluate of hydraulic fracturing in petroleum reservoir (2014).
24. **Farid Daneshvar**, Estimating of Optimal Strength Parameters for Fiber Shotcrete (Reinforced by Barchip Fiber), (2013).
25. **Javad Ghasemzadeh**, Determination of Strength Parameters Using Back Analysis in Order to

- Evaluate the Support System of LineA - Qom subway (2013).
26. **Mojtaba Zare**, Assessment of the Rock Slope Stability of the Chame-Shir Dam Power Plant Pit (2013).
 27. **Behzad Mesgarmoghadam**, Back Analysis of Rock Mass Modulus using Numerical Modeling (2014).
 28. **Mohsen Rahmanipour**, Proposes for Reform the Support System of Tabas Mechanized Mine (Central Mine) using Instrument results (2014).
 29. 26- **Hooman Rezaee**, Experimental Evaluation of the Effect of Specimen and Grain Size on the Mechanical Properties and Fracture Behavior of Rock (2014).
 30. 26- **Amar Kiya-Ashkevarian**, Performance Evaluating of Permanent Support System of Bakhtiari Dam's Water Transfer Tunnel Using Numerical Modeling (2014).
 31. **Arezou Rasti**, Experimental Study of the Effect of Cement and Chemical Grouting Based to Improvement of the Mechanical and Hydraulic Properties of Alluvial Formations (2014).
 32. **Karim Hemati**, Characterizing Deformation Mechanisms and Estimation of Anisotropy of Rock Mass at the Khersane-2 Dam Site Using In-Situ Tests (2014).
 33. **Mehdi Yazdanpanah**, Optimization of long wall face length upon effective factors by numerical methods (case study:Tabas Parvadeh 1 coal mine (2013).
 34. **Torab Alemzadeh**, The effect of excavation of the line -7 Tehran subway tunnel on the lining of sewage crossing tunnel (2012).
 35. **Sayed Rasol Ghodsi Klour**, Investigation on enhance oil recovery methods for oil reservoirs with low production (2014).
 36. **Meysam Karampor**, Determination on in situ stress direction using geophysical well logging (2016).
 37. **Hossein Shafii Esfidvajany**, Sand production prediction in petroleum industry using finite element method (2015).
 38. **Vahid Amirpoor**, Probabilistic evaluation of rock mass properties in order to stability analysis of water conveyance tunnel at Pir-Taghi dam site (2017).
 39. **Mehrnoosh Haghghat**, Stability analysis of Pir-Taghi dam site with respect to analytical Londe, Hoek and Bray method and numerical modelling (2017).
 40. **Asghar Moradi Kashkuli**, Determination of instability potential in Chadormalu mine (northern anomaly) by means of GIS-based parameter rating approach (2017).
 41. **Ghasem Azimi**, Rockburst process evaluation using data mining techniques (2017).
 42. **Mahmoud Mohammed Alneasan**, Evaluation of damages induced by blasting on rock structures in laboratory scale (2017)

43. **Ali Moradi**, The effect of discontinuities orientation on the mechanical properties of rock (2018).
44. **Ehsan Shokati**, The effect of specimen size on the mechanical properties of stratified rocks (2018).
45. **Morteza Abbasi**, Estimation of rock mass deformation modulus using multivariate regression (2018).
46. **Morteza Moghimi**, Determination of creep parameters of rock mass using the results of dilatometer test. (2019).
47. **Masoud Khalifeh-gholi**, Optimization of rock pillars geometry in room and pillar underground mines (2020).
48. **Rashid Afshar**, Grain Size Effects on Rock Fracture Toughness (2021).
49. **Ehsan Salehi**, The Effect of Environmental Conditions on the Fracture Mechanism of Carbonate Rocks (2021).
50. **Elahe Asadi**, The effect of grain size on specific energy of rock and concrete materials (2021).
51. **Mohammad Reza Ghasemi**, Quantitative assessment of damage due to thermal cyclic loading in carbonates rock (2023).

THESIS SUPERVISION (PhD)

1. **Mohammad Darbor**, The effect anisotropy on mechanical properties, rate of penetration and drilling specific energy of rocks: based on physical modelling and laboratory testing (2018).
2. **Bijan Dehghani**, Experimental investigation of thermal cyclic loading effect on geomechanical properties and damage in crystalline marble rock (2020).
3. **Behnam Abrah**, Evaluation of mechanical and hydraulic properties of fresh and damaged single discontinuities under different normal stresses and natural conditions with laboratory method (In processing).
4. **Alireza Vaic-Karami**, Measuring the strength of sedimentary rocks in real time during the rotary drilling (The second supervision is from Colorado School of Mines (Prof. Jamal Rostami), In processing).
5. **Pouriya Namdari**, The experimental investigation of CO₂, H₂S and H₂O effects on geomechanical properties and damage in rocks (The second supervision is from Department of Chemistry (Prof. Hassan Hadadzadeh), In processing).
6. **Masih Amiri**, Experimental investigation of the effect of overburdens pressure on petro-physical properties of oil reservoir using physical modelling (In processing).